CLUTCH
Car Listings and User-Targeted Competitive Holdings

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Introduction

The buying and selling of cars online has seen an increasing trend. This is due to many benefits to both buyers and sellers such as convenience, expanded reach and transparency. On top of that, auctions are a good platform for the sale of automotives as it reflects the market demand and can determine a fair market value. Sellers are also able to maximise their profit by putting their car up for auction under favourable market conditions. Lastly, auctions create an engaging and interactive experience that attract buyers.
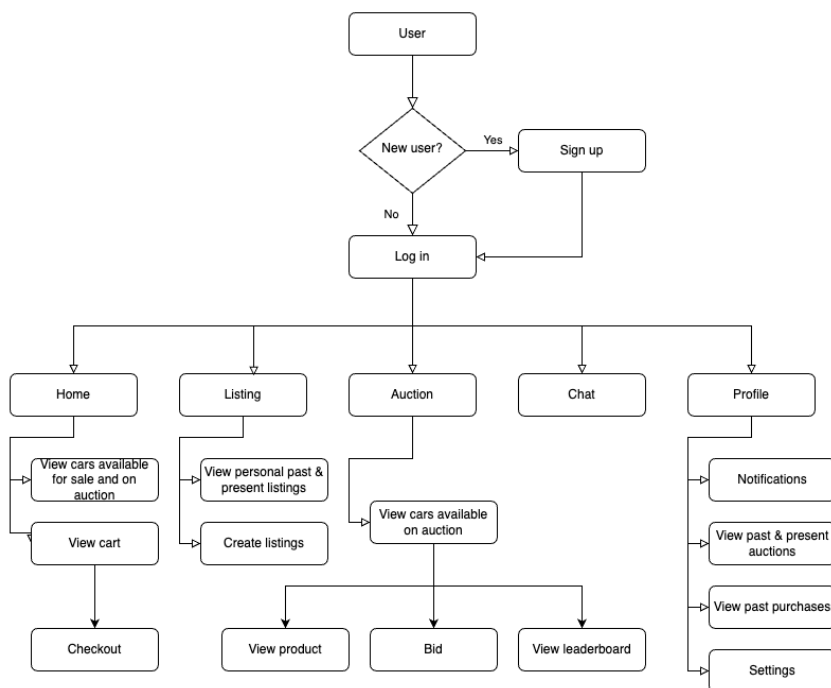
Objective

Our aim is to create an application with buying, selling and auction of cars without going through a third-party salesperson.
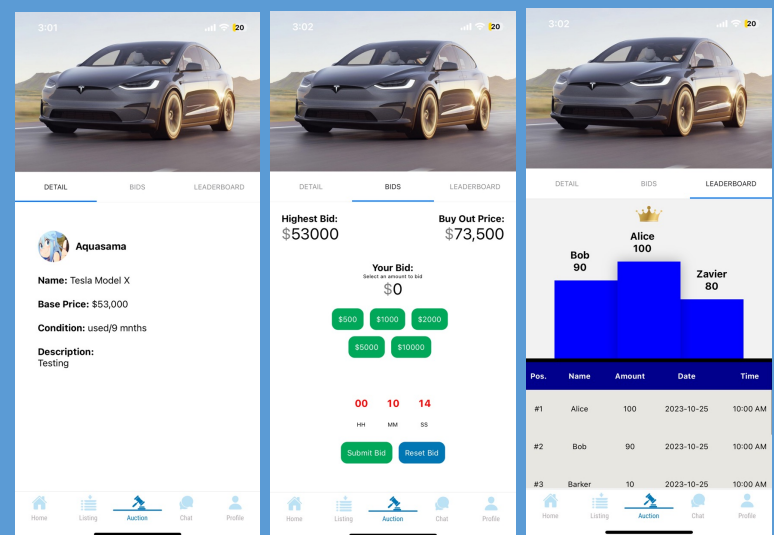
Technology Stack

For the development of this app, we decided to use the MERN stack. React Native for the frontend development, Express.js and Node.js for backend development and MongoDB for the database. Deployment and Development in AWS.

Solution

The above diagram shows the whole flow of CLUTCH, with the main feature being the car auction.

Key feature: Auction

Product Description | Bidding Details | Leaderboard

Advantages	Disadvantages
Ease of use	Large userbase is needed for the proper running of the app
Quick glance of the available cars in the convenience of a phone	People might sell illegal car mods
People could get a car at a lower price through auction	People might make a fake account and fake auction to generate interests

Conclusion

Overall, our mobile application, CLUTCH, aims to give users control by offering a platform for direct communication and trading. Tailored for those seeking a prompt liquidation at equitable market values, CLUTCH ensures the precise and efficient handling of all legal documentation and vehicle condition assessments during transactions, therefore benefitting users in the long run.

Future Work

- **Recommendation System (Data Analytics)**
  - To provide personalized and transparent car suggestions based on user behavior and preferences.
- **AR Model of Cars**
  - Allows user to explore the exterior and interior of the vehicles in a virtual space, providing a more immersive experience.